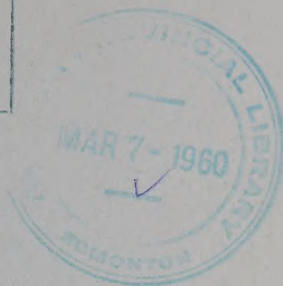


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**ANNUAL REPORT**  
OF THE  
**Department of Public Works**  
OF THE  
**PROVINCE OF ALBERTA**  
**1958-59**

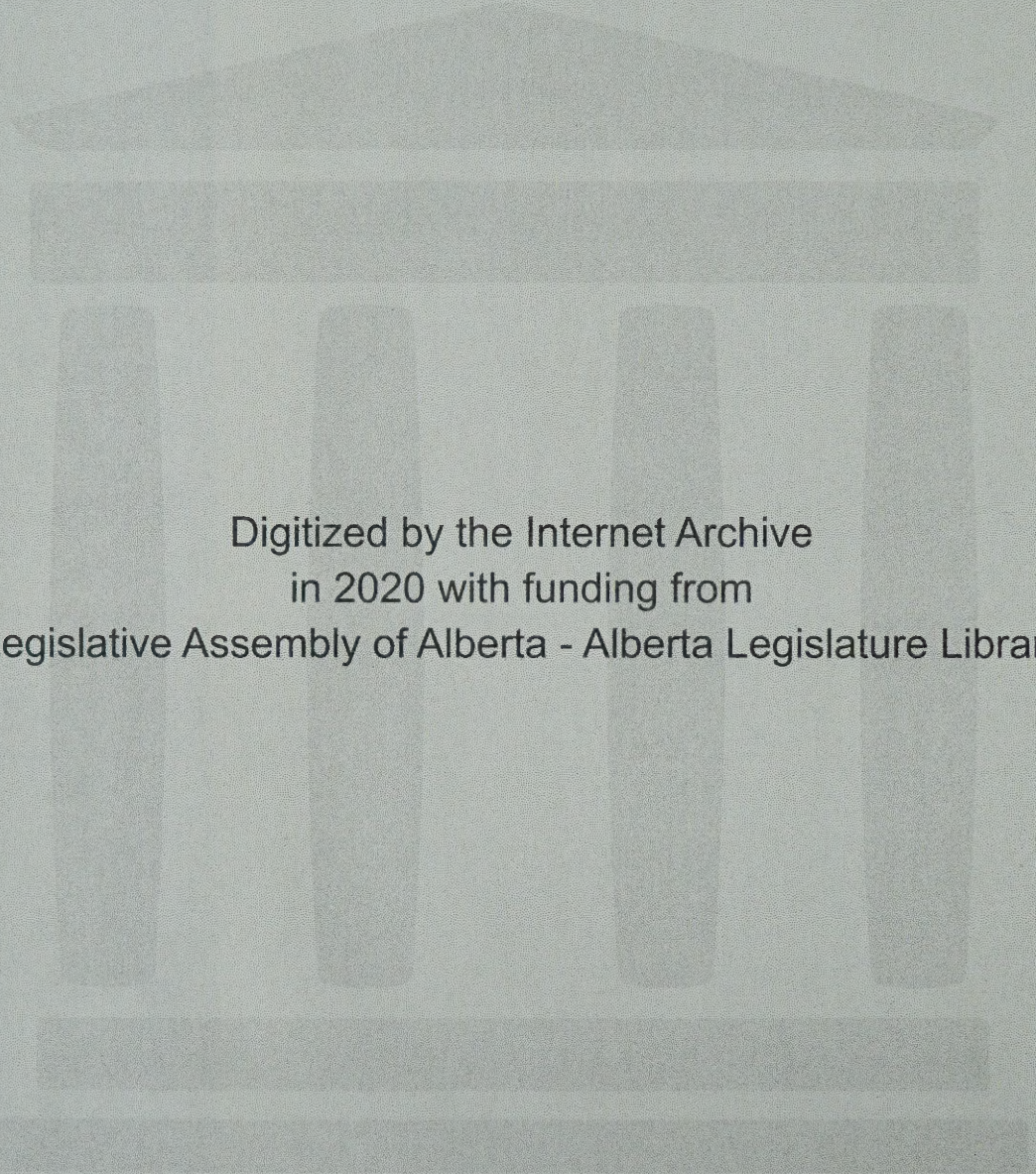
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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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EDMONTON, ALBERTA  
Printed by L. S. WALL, Printer to the Queen's Most Excellent Majesty  
1960





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EDMONTON, January 1, 1960

To His Honour,

J. PERCY PAGE,

Lieutenant Governor of the  
Province of Alberta.

Sir,

The undersigned has the honour to submit herewith the  
Report of the Department of Public Works for the year ended  
March 31, 1959.

Respectfully submitted,

JAMES HARTLEY,

Minister of Public Works.

**DEPARTMENT OF PUBLIC WORKS**

Edmonton, Alberta,

October 1st, 1959.

TO:

The Honourable James Hartley,  
Minister,  
Department of Public Works:

Sir:

I have the honour to submit herewith a report covering the activities of the Department of Public Works, for the fiscal year ending March 31, 1959.

An extensive programme of construction and maintenance was undertaken this past year, the details of which are contained in the attached report. Photographs have been included in the report to better illustrate the types of buildings being constructed by this Department.

The Mechanical Branch, which is responsible for the operation and maintenance of the Power Plants and utility services at the larger Provincial Institutions, continued this year to expand its services.

In addition to the projects under the attached report the Architectural Branch of this Department continued to provide its services by way of detailed planning and design for a large volume of work for the Alberta Government Telephones, and during this period construction in the sum of \$1,335,000.00 was carried out for the Alberta Government Telephones. Over \$140, 000.00 in projects was done for the Alberta Liquor Control Board.

Respectfully submitted,

ARTHUR ARNOLD,  
Deputy Minister of Public works.

## DEPARTMENT OF PUBLIC WORKS

The Department of Public Works is responsible for the construction of all Provincial Government Buildings.

The Department is also responsible for the servicing and maintenance of all Provincial Government owned buildings, with the exception of various self-contained institutions, such as the Provincial Gaols, the Schools of Agriculture, and the University of Alberta. The maintenance and servicing of these buildings needs the services of a large group of men of assorted technical skills. Carpenters, plumbers, electricians and other tradesmen keep these buildings in good repair. Gardeners maintain the surrounding grounds, which are quite extensive at some points, namely the Provincial Mental Institute, Oliver, and the Institute of Technology and Art, Calgary. Caretakers keep the buildings clean, men operate the elevators, and watchmen guard the buildings at night.

The extensive programme of construction which we are presently undertaking, requires the services of a large staff of architects, engineers, draughtsmen, surveyors and building inspectors, who design and plan the buildings and supervise the work of the contractors. Some urgent and also minor construction work is undertaken by our own forces. This requires the Department to maintain a staff of tradesmen, which is augmented by temporary staff as the requirements of the work necessitates. The Department operates various trade shops, where furniture and equipment, such as laboratory benches, etc., are made.

A number of buildings of contemporary design are being constructed under the direction of this Department at the following points:



### **ANDREW**

At the above point a one storey, brick face, concrete block building, 30' x 70' with vinyl tile floor and acoustic tile ceiling, was constructed.

The completion of this building has provided very suitable accommodation for the Treasury Branch which was formerly housed in a rented building.

### **BELMONT**

No major construction was undertaken at the Belmont Rehabilitation Centre for men. However, a cement block machinery and storage shed was built and work was done on landscaping of grounds, roads, curbs, sidewalks and street lighting.

Construction was completed on a building known as the Alberta Institution for Girls, which is located on a five acre site adjacent to the Belmont Rehabilitation Centre, thus providing facilities for the rehabilitation of girls from the ages of sixteen to eighteen years. The structural members of the entire building are of precast concrete, as are the exterior wall panels, the floor slabs and the roof slabs. The interior partitions are of concrete block. The building provides accommodation for seventy girls, having six classrooms which provide the necessary educational facilities, a hospital and dispensary, a gymnasium for recreational purposes, diningroom and kitchen facilities, and an administration wing.

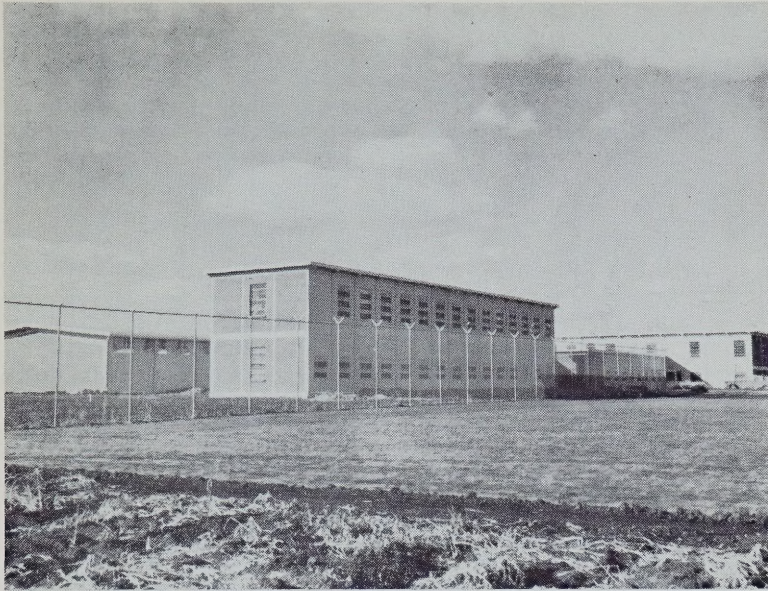
The landscaping of the grounds includes an outdoor recreational area. Considerable work was done on the construction of roads, drainage, street lighting and fencing.

Occupancy of the Alberta Institution for Girls by the Department of Attorney General was effected in September 1958.

### **BOWDEN**

An extension was added to the Greenhouse in order to provide additional facilities for the horticultural work undertaken by the inmates. The landscaping programme continued as well as the building of roads, sidewalks, and the provision of outside lighting. Efforts were continued by the Department to purify and increase the water supply, where some difficulty is being met because of an underlying strata of extremely fine sand.





Alberta Institution for Girls, Belmont

## CALGARY

Construction was completed on an Addition to the west end of the "B" Shops Building, to provide additional shop facilities and classrooms for the automotive and building construction departments. This Addition is steel frame construction to match the existing "B" Shops Building.

The modern equipment in the one storey automotive shop includes several hydraulic hoists, alignment equipment, parts cleaning room and under floor exhaust system. The two storey portion contains classrooms and a large concrete shop. The concrete shop provides additional facilities for courses in concrete construction, and is equipped with an overhead travelling crane.

A programme of renovating the heating was completed at the Institute of Technology & Art, providing thermostatic control in each room.

Also at the Institute of Technology & Art the erection of a new building known as the East Block, was completed. This building is located directly west of the original school buildings. It provides facilities for the teaching of music, art, pottery work and sculpture, radio and electronics. In addition to the teaching of these courses a food service training centre, with supplemental kitchens and diningroom is provided, which is operated by the students taking training in the restaurant management course.

The total floor area of the East Block approximates 148,000 sq. ft., including forty-nine classrooms, an art gallery,

two libraries and a modern cafeteria. The building is of contemporary design; the exterior being built of brick with precast concrete panels. The floors are constructed of precast concrete, and the main foundation basement walls and structural frame is of reinforced concrete. Consideration was given to the acoustical qualities of the building by installing acoustical plaster in the classrooms and acoustical tiles in the corridors. The extensive window area and air conditioning equipment provide excellent conditions for the teaching of the various courses. The heating is by a forced hot water system with fin radiation.

The Institute staff took over occupancy of this building in October 1958.

The parking lot at the Jubilee Auditorium was completed to meet the City of Calgary overpass.

At the Manchester Shops a storage shed 24' x 30' was completed, to store cores for the Oil Conservation Board.

Substantial progress was made with the construction of the Cancer Clinic, Calgary, and it is anticipated that completion will be effected sometime in June of 1959. This building is being constructed north of the Holy Cross Hospital and will provide the following services: examination rooms, X-ray suites, laboratories, cobalt treatment and deep therapy rooms, administration services, waiting rooms, staff accommodation, and laundry and boiler room plant.

Construction of the Cancer Clinic is of a reinforced concrete frame structure, with reinforced concrete joist floor and roof slabs. Exterior walls are of hollow clay tile back-up face brick veneer. However, to the west elevation, construction is of insulated porcelain enamelled panels, with wood sash. The interior partitions are of wood and hollow clay tile.

The floor coverings are of linoleum vinyl and rubber tile, mosaic tile and terrazzo. The surgery finishes are of plaster throughout except in designated areas, where glazed ceramic tile dado is used. Ceiling finishes are of plaster and acoustic tile. Special mention should be made of the cobalt treatment rooms and deep therapy room. This unit is constructed of solid concrete, with walls that vary in thickness up to 3'10". To each room is an observation window consisting of lamination of leaded glass, with lead frame and lining surrounding the window. The cobalt bomb units and deep therapy equipment and diagnostic X-ray equipment is supplied and installed by the Department of Health. This Clinic is connected to the Holy Cross Hospital with an underground tunnel, so that patients may be brought from that hospital for treatment. In addition, an ambulance entrance with ramp is provided for patients from other hospitals throughout Southern Alberta.

The past year saw the construction and completion of Phase I of the Calgary Provincial Gaol. Phase I is a part of the proposed security institution to be developed on this site. This initial building will serve as accommodation for 160 inmates.

The two outer wings of this "E" shaped structure have dormitory type and cubicle type accommodations respectively for





Aerial view of the Provincial Institute of Technology and Art site,  
showing the East Block in the foreground



Cancer Clinic, Calgary

the differently classified inmates. Each wing has its own recreational areas and washroom facilities with an elevated control room centrally located for easy supervision of activities within the compound. The centre bar of the "E" houses the diningroom, which also serves as a chapel or an assembly hall and is of sufficient size to seat all inmates at meal times. The kitchen is fully equipped with preparation, storage areas, refrigerated stores, bake shop, cooking and dishwashing facilities and a cafeteria style serving counter to the diningroom. The same kitchen provides for the staff diningroom, flanking the main dining hall.



Provincial Gaol, Calgary

### **PROVINCIAL GAOL, CALGARY**

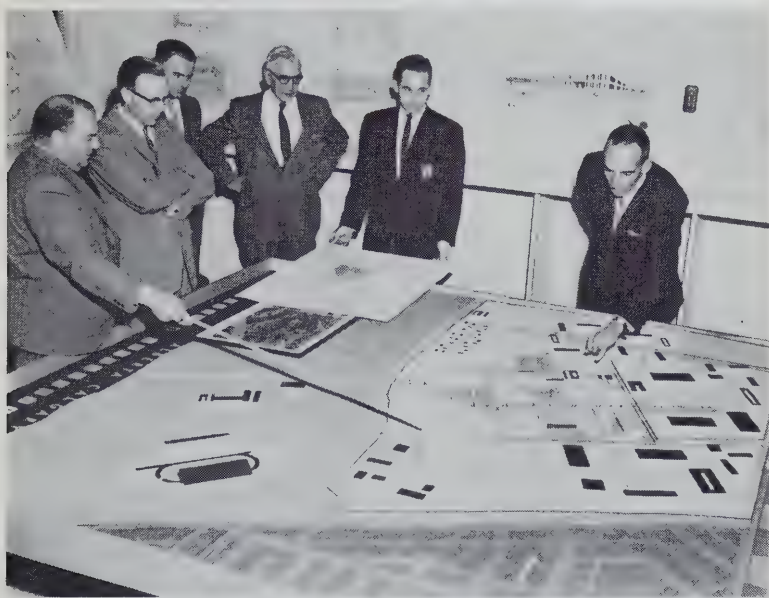
The north wing of the Calgary Provincial Gaol, which heads off the dormitories and the dining hall, houses the centrally located administration section, the main control room, the nerve centre of the institution, the visitors' room, the infirmary, the admission section, the central storage and a ten cell block as a disciplinary measure should need arise.

The entire building is of concrete construction with insulated "sandwich" wall panels and pretensioned concrete roof system providing a clear span for all wings. Interior partitions are of frame construction or concrete blocks, and glazed concrete blocks in wet areas. All finishes have been chosen for utility and for ease of maintenance, with concrete floors throughout and painted exposed concrete wall and ceiling surfaces as much as



possible. All windows are security type steel sash with tool-proof-steel reinforcements. Some brick has been used on the exterior of the building. The roof is a built-up roof with compressed straw board insulation. The temporary boiler outside the building supplies low pressure steam for the projection heaters and ventilating units throughout the building.

On October 1, 1958, an official sod turning ceremony was held on the site of the proposed University of Alberta, Calgary. Planning has commenced on the erection of two buildings which are expected to house numerous small departments so that as the Campus expands individual departments will be able to take over individual buildings.



Reading from left to right, Mr. Arthur Arnold, Deputy Minister of Public Works, Honourable E. C. Manning, Premier, Honourable A. R. Patrick, Minister of Economic Affairs, Honourable James Hartley, Minister of Public Works, Mr. S. Dietz, Project Architect, and Mr. H. A. Henderson, Chief Architect, Department of Public Works, discussing the site layout for the proposed University of Alberta at Calgary.

At the Baker Memorial Sanatorium a minor programme of landscaping, cement walks, roads, and curbing, continued. The renovation of the electrical system of the sanatorium, which included the installation of a new panel and the re-wiring and changing of feeders from 550 volt primary to 2300 volt primary, was completed.



In preparation for a new multi-million dollar Court House the original Court House located on 4th Street West and 107th Avenue in downtown Calgary was demolished and the site cleared. Planning is proceeding on the new building which is expected to provide eight Court Rooms with related judicial facilities.

### **CAMROSE**

At the Rosehaven Home the construction of a concrete block building was completed, which will house a Carpenter Shop, a Paint Shop, and provide storage space.

The Greenhouse and Potting Shed, which was commenced last year, was also completed, thus enlarging the facilities of the Home.

### **CANMORE**

At the Ranger Station site at this point, gas was installed, and considerable levelling of ground and landscaping was done. Two single garages were completed. A small office building was constructed, and wells were drilled to provide water.

### **CANYON CREEK**

Construction was completed on the new wharf at this point.

### **CASTOR**

Construction was completed on a two stall Snow Plow Shed.



### **CLARESHOLM**

At the Auxiliary Mental Hospital, Claresholm, a dormitory of 112 bed capacity was built. The one storey building was constructed in frame and stucco, and provides day rooms, an infirmary, and kitchen and diningroom facilities. The construction of this building marks the start of a major construction programme which will be undertaken in the coming years at Claresholm, to make this a complete mental home establishment for the south of the Province.

### **COLEMAN**

The construction of a small cottage and a two car garage which commenced last year, was completed this year.

### **DRAYTON VALLEY**

Construction of one staff residence, which was commenced last year, was completed this year, to provide accommodation for staff of the Oil Conservation Board.

### **EDMONTON**

The major construction programme continued at the University of Alberta Hospital.

Substantial progress was made on the construction of the Clinical Services Addition to the University of Alberta Hospital. The Building itself is located at the north end of the present University of Alberta Hospital, and projects eastward to match the 1950 addition to this hospital. The structure is of steel frame with masonry walls and stone veneer, and will match the existing hospital insofar as materials are concerned. However, its design is of contemporary nature, and will add a pleasing contrast to the present structure.

Many varied facilities will be provided by this building. On the lower floor facilities will be provided for a complete medical records department and X-ray storage. Staff facilities will also be in this area, and a small chapel will also be available for patient use for meditation and such devotional services as may be desired. The chapel will be non-denominational.

The main approach to this building is on the second floor and there will be the admitting area for all patients on this floor, whether they be in-patients, out-patients or emergency patients. A large clinic for out-patients is developed for this area, and this will replace the present outdoor clinic of the University of Alberta Hospital which is located in down town Edmonton. Also located will be the admitting department on this floor, for the entire

hospital, and from this point all in-patients will be dispersed to their various wards.

A complete clinical laboratory department is planned for the third floor. This will take care of all laboratory services throughout this 1,200 bed institution. Likewise, the fourth floor will provide complete X-ray facilities for treatment and diagnosis.

From the exterior appearance of the building the fifth floor will express itself as a blank wall, and this will contain the operating room suite.

On this floor there will be fourteen windowless operating rooms, which will be equipped with the very latest in equipment, and are of ample size for present, as well as anticipated future medical needs. Two of these operating rooms are equipped with overhead observation galleries for the training of medical students. In addition to allowing students to observe in close detail the operation under performance, there is also an inter-communication system through which the surgeons will be able to interpret to the students the procedures being carried on.

A new obstetrics' department will be located on the sixth floor. Mechanical services to completely air condition this building will be on the remainder of this floor.

When this six storey structure has been completed, the fifth floor of the original hospital will be demolished, and replaced



University of Alberta Hospital buildings, showing Clinical Services Addition at right centre



with fifth and sixth floors so that there will be a complete horizontal tie between the new addition and all present facilities throughout the hospital. With this system in operation it will be possible to locate the maternity section on the upper floor, completely isolated from all other departments. The fifth floor will be surgical throughout its entire horizontal direction, and the third and fourth floors will be devoted to general nursing and hospitalization usage.

Further development will be made to the rear of the Clinical Services Addition when this building has been completed. This will include the erection of new shops maintenance departments, increased laundry facilities, with morgue attached, and a small lecture amphitheatre for student instruction. In this amphitheatre it is planned to have a television monitor which will have direct communication to two of the operating rooms, whereby large gatherings of students or members of the medical profession can observe operations in progress.

Construction was completed on the Interns' Residence, which is located directly south west of the University of Alberta Hospital. The building is of a flat T-shaped design with the two larger wings to the north and south and the smaller centre wing extending to the west. The east side of the building faces the University of Alberta Hospital parking lot. Between this lot and the new building two tennis courts flanked by two parking lots, with a capacity of 60 cars, are provided.

This building is of reinforced concrete frame construction, with one-way reinforced concrete floor slabs. The exterior is face brick and precast stone with tile backing, ceramic mosaic tile on columns and flagstone floor on the portico. The combined picture and casement windows are of wood. Aluminum was used for continuous vertical glass screens on the west wall, exterior doors and a windscreen on the sun deck.

The north and south wings are four stories, the centre wing five stories high, basement excluded. Twenty-four couples are housed in six suites on each floor, as well as four bachelors in single rooms with attached bath on each floor. The suites consist of living room, with kitchenette, separated by a folding wall, bedroom, bathroom, and a small hall. Fresh air is supplied from the corridors. The kitchenettes are equipped with refrigerator, stove and built-in counters and cupboards.

The north wing and the west part of the centre wing house forty-eight single interns altogether — sixteen each on the three upper floors of the north wing, three each in the centre wing. Together with the four single rooms in the south wing, a total of fifty-two rooms. Each of the two wings has its own toilet and bath facilities. The layout is such that by accommodating either men or women in the single rooms of the south wing and having men or women grouped in one wing, the building can be occupied to capacity at all times.



Interns' Residence, University of Alberta Hospital, Edmonton

The main recreation room is on the first floor, taking up the whole north wing and can be made into four smaller rooms by closing folding walls. The centre core of the first floor is the vestibule with caretaker's room and a small lounge. The attractive flagstone floor extends from the east entrance, through the west entrance to a portico. There is also a social room on each of the second, third and fourth floors, accessible from the centre halls. Also a library and sun room are on the fifth floor. The laundry drying room, trunk storage rooms and incinerator room, are in the basement. From the basement a tunnel connects the new building with the hospital tunnel system.

A contract was awarded for the footings and foundations of the Physics-Chemistry-Mathematics Building, which will ultimately be a seven million dollar project. This will be the largest building on the University of Alberta Campus, and will house the departments of Physics, Chemistry and Mathematics, as well as having a major library and fourteen multi-purpose amphitheatre type classrooms for general use on the University of Alberta Campus. The building is of steel skeleton with brick exterior to match the adjacent Campus buildings.

The Physics-Chemistry-Mathematics Building at the University of Alberta, Edmonton, consists of five self-contained but inter-connected units, namely, Chemistry Building, Physics Building, Classroom Wing, Library and Lecture Theatre, grouped

around a rectangular centre court laid out with lawns, walks and a centre pool, which is accessible from all units.

The entire project is of steel frame construction with concrete floors throughout. Brick facings with precast concrete trim have been used almost exclusively for the exterior finish, with an interior backing of precast concrete blocks. Main entrances to the Chemistry, Physics and Library buildings are each approached by a concrete stairway enclosed by aluminum framed window walls and doors, and the floor finish is terrazzo. Window frames in the Chemistry and Physics units are of wood with awning type casements, and aluminum framed window walls provide adequate natural light in other units of the building.

The Chemistry unit is five stories in height, excluding basement and mechanical pent houses, and contains undergraduate, graduate and research laboratories, ranged on both sides of a centre corridor, which runs the entire length of the building. The Physics unit is six stories high, excluding basement and pent houses and is of the same design. Each of these units has three stairways of steel pan and terrazzo fill construction, and two elevators with provision for a future third. Interior wall finishes are exposed concrete block, with plywood covered stud partitions in some areas. All corridor and staff office floors are finished in linoleum tile.

The Classroom Wing encloses two sides of the centre court and is one storey above grade, with basement, and has fourteen classrooms with a total capacity of 1,316 students. Each classroom has tiered seating for maximum visibility and is equipped with a projection screen. Lecture preparation rooms are located between classrooms at basement level and there is adequate cloakroom space provided in the same locations on the main floors. A terrazzo covered concrete stair connects main floor with basement, and floors throughout are finished in linoleum tile. Walls of classrooms are exposed concrete block and plaster with acoustical ceiling and rear wall.

The Library is located between the Chemistry and Physics units and is one storey above grade, with basement. The basement portion is of sufficient height to accommodate a mezzanine which provides additional book storage, and the whole unit is well equipped for text book and periodical reference. Exposed wall surfaces are plaster finished and the floors are linoleum tile. The first floor comprises a large entrance hallway and students' lounge, which have the same finish as the library.

The Lecture Theatre forms an adjunct to the Physics unit but is intended for general use by all departments. This unit comprises three floors with entrance lobby at grade level, lower lobby below and exhibition floor above, the last named giving access to the auditorium, with a seating capacity of 396. The auditorium has a projection room, large projection screen and chalkboard, and has been designed for maximum acoustical efficiency. Wall finishes are mahogany veneer, decorative metal and



plaster, and the floors are terrazzo. Two metal pan terrazo open staircases connect the floors, and a cloakroom is located on the entrance lobby floor.

Another major project was the commencement of construction on the Physical Education Building, which is located south of 89th Avenue and connected to the west end of the Students' Union Building at the University of Alberta.

The building, complex designed by the Provincial Department of Public Works, is composed of three units:

1. The Administration Building
2. The Ice Hockey Rink
3. The Gymnasium-Swimming Pool Building

The main entrance is located in the Administration Building, and direct passage between the three units is provided by corridors. The Administration Building of two floors has brick faced exterior walls. The interior walls are painted concrete blocks and glazed partitions. The lower floor contains the wrestling room, weight lifting room, remedial gymnasium and a room for individual exercise, various store rooms, and freezing plant for the ice hockey rink.

The ice hockey rink, with separate entrance and coat check room in the Administration Building, is a prestressed reinforced concrete structure. The exterior walls are precast concrete panels. At the entrance the lower and upper lobbies open on to the ice rink. The lower floor, below the bleachers at ice level, contains team rooms with shower rooms, washroom and storage for different purposes. The building will house 2,500 spectators.

The Gymnasium-Swimming Pool wing is a three level reinforced concrete structure, with some prestressed elements. Exterior walls are a combination of precast concrete panels and face bricks. The main corridor at first level has an entrance from the parking space. This floor mainly consists of a Women's Gymnasium, locker rooms, with showers and washrooms, equipment rooms, laundry and store rooms.

The swimming pool, which can be entered from the locker rooms only through the shower rooms, is equipped with a one metre and a three metre diving board. The dimensions of the pool permit it to be used for international contests. The pool room is designed with bleachers seating approximately 400 spectators.

Stairs from the main corridor enter the second and third levels, the major part of which contains the main Gymnasium. This gymnasium has both fixed bleachers and movable bleachers, seating some 2,000 persons. The remaining space at these levels is taken up by team rooms, referees' room, first aid room, staff locker rooms and washrooms, library, and offices.



Physical Education Building, Edmonton, under construction



Architect's perspective of Physical Education Building, Edmonton

Construction was started on an addition to the University of Alberta Medical Building. This is a six storey addition, built to the rear of the main building. It is of similar steel and masonry construction to the original building, although it is two stories higher. Facilities contained therein will be additional dental teaching laboratories and further medical research laboratories.

The "Storage Addition" at the University of Alberta Hospital is one of the steps towards the consolidation of the service and central storage areas, to cope with the increased requirements of the enlarged hospital. This project is a part of the Laundry, Stores, Shops and Morgue Addition — to be exact it is the first phase of it.

The old cafeteria building, occupying the larger part of an enclosed courtyard, together with a corridor along the present laundry was removed to make room for a large unobstructed central storage area. This storage space is already bordered on four sides by existing buildings — the only new construction to complete the enclosure will be the insulated concrete roof slab supported on a light steel structure.

A tunnel alongside the existing kitchen building will provide a future connection to the Clinical Services Building and to the future Laundry, Shops and Morgue Building.

The inside finishes will be of utility type — hardened concrete floor, plaster walls and ceiling; plastic firedome skylights will provide natural lighting of the area. The roof will be built-up pitch and gravel roof flashed to the existing walls of the surrounding buildings.

The rapid increase in the number and size of buildings in the University area, has taxed the University of Alberta Power Plant to its practical limit. In order to relieve the University Power Plant of supplying other than its own buildings with steam and electricity, a new Power Plant was designed to supply all Government buildings south of 87th Avenue in this area. An economic analysis indicated that since electricity was in demand throughout the year, and that additional steam was needed only during a portion of the year, a device which would generate electricity as a main product, and still be able to produce steam as a by-product, would be most desirable. Further investigation proved the economical justification of a gas turbine power plant.

Coincidental with the above analysis the English Electric Company of Rugby, England, offered to the University of Alberta, a commercial sized gas turbine, complete with waste heat steam boiler at a reduction of \$100,000.00, if it were installed so that engineering students could observe its operation. The offer was turned over to the Government, and after further negotiations, was accepted. The turbine is now under construction in England, and a contract has been awarded for the construction of a Power Plant Building. The Plant will serve the electrical needs of all



buildings, and through interconnection of the steam piping, ensure adequate steam supply. Since it can be started within three minutes it will also serve as an emergency power plant for the hospital.

While all standard services are interconnected, consideration has been given to the emergency problem, and wherever possible self-sufficient units are incorporated. The switch gear and electrical services have been designed for future expansion so that this can be installed as the need arises, with minimum delay and outage.

Construction of the Power Plant Building was completed this year. This building is of concrete block and brick design, single storey power plant area, with workshop and office spaces included in a multi-storey bay. Sound-proofing and noise reduction have been incorporated as an essential feature of the building. This building is in harmony with its surroundings and forms an integral portion of the cultural, educational and hospital facilities provided by the Government of Alberta.

A major project completed on the Campus of the University of Alberta, was the Biology Science Addition. This is an addition to the Agricultural Building, which is situated at the extreme north end of the University Campus. The addition comprises a basement and four upper floors, having a gross area of over 80,000 sq. ft.

The Biology Wing is a repetition of the original Agricultural Building, with the addition of a central block and a lecture theatre, with classroom extension to the south. It repeats the original design with regard to the structure and architectural treatment. It is constructed of a reinforced concrete structural frame and floor slabs with masonry exterior walls and interior partitions, and many interior partitions are also wood frame with glass. The outside finishes include facing brick and terrazzo with steel sash double glazed windows. Entrance doors and stair windows are aluminum and the south facade has aluminum window shades to match the original design. Interior finishes include linoleum and rubber tile floors, acoustical ceilings and considerable areas of faience tile in corridors. In general, materials and finishes correspond to the original design.

A special feature of the new wing is the high velocity ventilation system employed. The addition also contains a very large amount of laboratory benches and cabinet work which were constructed by the Department of Public Works shops and crews.

Also completed during this year was an addition to the Provincial Laboratory of Public Health, which is located west of the University of Alberta Hospital. This addition is a four storey reinforced concrete structure, with masonry cladding, and exterior finish in facing brick and precast terrazzo panels. It is an approximate continuation of the design and the construction of the original laboratory building.

This project provides additional teaching facilities for pathology and bacteriology, and also gives an increased working area for the usual operations of the laboratory. This includes more space for media preparation, a suite of laboratories for virology, each with sterilizing and clean-up facilities, and additional animal accommodation. The nature of the work in this addition necessitated certain special provisions for ventilation and air conditioning, a system of temperature controlled cabinets and extensive bench work with water, gas and electrical services.

The materials used in this addition include reinforced concrete, facing brick, hollow clay tile, precast and cast-in-place terrazzo and wood windows and frames. Finishes comprise plaster, ceramic tile, suspended acoustic ceilings, and vinyl asbestos and lino tile, linoleum and mosaic tiles for floors.

The Rosecrest Home for Children at Edmonton was completed, and provides accommodation for retarded children up to the age of six years.

The building is a wood framed structure on concrete foundations, with basement and crawl space under main floor. All interior walls are of wood frame. The exterior walls are finished partly in stucco and vertical cedar siding, and the building has a shallow pitched roof. In the basement provision is made for a workshop, kitchen supply, laundry and boiler room. The main floor has nurseries containing cribs, two play rooms, nurses' stations, kitchen, kindergarten, staff rooms, matron's living quarters, and janitor's living quarters.



Rosecrest Home for Children, Edmonton

Work was completed on the construction of an additional floor to the Public Works Building No. 2, which is located directly south of the Legislative Buildings. This will permit the consolidation of the Public Works Department into one single building. The General Office, Mechanical Branch, formerly housed in the Terrace Building, the Stock Advance records office, formerly housed in the Maintenance Shops Building, and the office of the Minister, formerly housed in the Legislative Buildings, will occupy the new third floor. The second floor will be occupied by the Deputy Minister's Office, the Architectural and Engineering Offices, and a Conference Room for the public opening of tenders. A new passenger elevator was added to serve the upper floors of the building.

Additional parking space was also provided at the Public Works Building No. 2, by the removal of the Annexe, located to the west of the building. This was moved to the Alberta Civil Defence Headquarters at 10322 - 146 Street, Edmonton.

At the School for the Deaf a programme of landscaping, and the installation of roads, walks and the supply of water to the grounds, was continued.

A major renovation and addition was completed in 1959 on the Cerebral Palsy Clinic at 11507 - 74 Avenue, Edmonton, which provided additional classrooms and therapy equipment workshop.

At the Natural Resources Building additional fire escapes were installed, and a breezeway between this building and the Administration Building was enclosed with materials matching the existing structures.

A cooling tower was constructed adjacent to the Legislative Buildings Power Plant. This device provides chilled water in sufficient quantities to supply the air conditioning system in the Highways Building.

The storm sewer collection scheme on the Legislative Grounds was extended to aid in preventing hillside erosion above the City of Edmonton River Drive.

## **EDSON**

Construction commenced on a ten stall garage to house road equipment for the Department of Lands and Forests.

## **FAIRVIEW**

The original Boiler House at the School of Agriculture which was burned down, was rebuilt in order to provide heat for existing buildings.



### **FORT MACLEOD**

A four stall Snow Plow Shed was constructed at this point to provide increased facilities for the Department of Highways maintenance crews.

### **FORT SASKATCHEWAN**

At the Provincial Gaol construction was completed on three staff houses, which were commenced last year, and also three additional staff houses were started and completed this year. A planned programme of steam lines, water lines and sewage lines was undertaken and the floors in the hallways of "B" Block and all dormitories, were renewed by the installation of vinyl tile. A programme of landscaping, the construction of sidewalks, curbs and roadways, was continued.

### **GRANDE PRAIRIE**

An eight stall Snow Plow Shed and an addition to the Repair Shop was completed this year.

### **LETHBRIDGE**

At the Provincial Gaol a programme of renovating the water and sewage disposal system was undertaken. A small cement block implement shed and a small paint shop was built. The obsolete smoke stack at the Power House was demolished.

### **MEDICINE HAT**

A new modern Snow Plow Shed was completed to provide additional facilities for the Department of Highways. An addition was built to the Snow Plow Shed to provide space for the examining of welders in connection with the Department of Industries and Labour's apprenticeship training programme.

### **OLIVER**

The new Laundry Building at the Provincial Mental Institution will be located north of the kitchen, and will be connected to the corridor system of the institution through the existing Ward No. 6. This latter building will be converted into sewing and mending rooms to be used in conjunction with the Laundry Building. The Laundry Building is a steel frame building on reinforced concrete foundations. The exterior walls are of brick and concrete block of the insulated cavity type construction. The roof is a built-up roof with rigid insulation over steel roof deck.

All interior wall surfaces are in glazed concrete block for cleanliness and easy maintenance. The large windows with insulating double glazed units are providing ample natural lighting for all working areas. The floors are of quarry tile throughout with acid and alkali proof grouting in the laundry area proper.

The building has a partial basement and crawl space for the distribution of services, and to house the water softening equipment. On a mezzanine floor are located the ventilation equipment providing the required amount of air changes in the building. The presently used laundry equipment will be supplemented with the addition of new equipment and a small dry cleaning plant. An overhead crane and electric hoist will make the laundry operations entirely automatic.

Also at the Provincial Mental Institution, Oliver, work was started on an addition to the Nurses' Residence. This building is a frame structure with concrete foundation. The exterior finish is stucco face brick, with bathroom facilities, a matron's suite, and for the nurses' use, a kitchen and sittingroom. Double bedrooms are located on the second floor with bathroom facilities. The addition is connected to the existing building by a corridor on each floor.

## **PONOKA**

The only major project carried out at the Provincial Mental Hospital was the construction of a Nurses' Residence. This building is of wood frame construction, with concrete basement walls, flat roof, and stucco exterior finish, and also face brick veneer. The accommodation consists of basement, lecture rooms, library, laboratory, washroom and cloakroom facilities.

The first and second floors have single and double bedrooms, bathroom facilities, and livingroom.

A new storm sewer drainage system was laid during the past year.

## **RED DEER**

At the Deerhome Institution construction consisted of the completion of Dormitory No. 3 and the continuation of Dormitories 4 and 6, and the start of construction for a new Women's Staff Building.

The two dormitories are of identical construction, except that Dormitory No. 6 is to be used as an Infirmary, while Dormitory No. 4 is to be used for wards.

The dormitories are steel framed structures with hollow clay tile interior walls, and exterior walls of hollow clay tile back-up with face brick veneer.

The staff residence is of light steel frame, with all interior partitions of wood, and the exterior finish is of stucco and face brick veneer. The building will have accommodation as follows: basement; recreation room, laundry, storage rooms, washroom facilities; and the first and second floors have reception rooms, lounges and bed-sittingrooms.

At the Provincial Training School three buildings were completed — a male staff residence, a Sense Training School and a Vocational Training School.

The male staff residence is a frame structure on a concrete foundation. Each floor has single rooms, with bathroom facilities and staff lounge. The exterior finish is of stucco. In addition the stucco finish to the existing building is to be repaired and repainted to match the new work.

A four classroom Sense Training School was also commenced. This building is also of frame construction with flat roof and stucco exterior finish. Accommodation consists of four classrooms, washrooms, cloakrooms, teachers' rooms, and furnace room.

The Vocational Training School is of similar construction as the two previous buildings, wood frame on concrete foundation with stucco exterior finish and flat roof. This building provides the following facilities for: ceramics, basket work, domestic science, occupational therapy, carpentry, metal work, paint shop and hobbies.

In addition to the above construction, a new sanitary sewer system was laid, and new grading and paving for paths, roadways, etc., was carried out.

A new office building for the Oil Conservation Board was constructed in the City of Red Deer, and is located on Highway No. 2. This is a one storey structure of wood frame.

An addition was made to the rear of the Court House to provide additional office and court room facilities.

## **SLAVE LAKE**

Construction commenced on a ten stall garage to provide increased facilities for the Department of Lands and Forests road service equipment. Construction also started on a store house which will, in addition, provide space for mechanics' and radio technicians' repair rooms.

## **ST. PAUL**

A two storey addition was built to the present Provincial Building, to provide Court Room facilities and increased office space.



## **TWO HILLS**

A one storey wood frame structure on concrete foundation was built at Two Hills this year. The building has a flat roof with exterior walls finished in stucco. It provides adequate space for a Treasury Branch and the offices of the District Agriculturist.

## **WETASKIWIN**

Additional alterations and renovations were carried out to the Wetaskiwin Court House to particularly improve the acoustic qualities of the main Court Room. Additional office facilities have been provided in the Court House for other governmental departments located in the area.

## **SNOW PLOW SHEDS**

During the past year construction was started and completed on Snow Plow Sheds at Vegreville, Castor and Fort Macleod.

These buildings are wood frame on concrete foundation structures, with flat roofs, divided into four bays, and having concrete floor slabs and large garage type doors. In addition an office and furnace rooms are provided.

## **MUNICIPAL HOSPITALS**

During the past year the Department prepared working drawings, specifications and supervised the construction of a Nurses' Residence for the Municipal Hospital at Wainwright.

The residence is a wood framed structure on concrete foundation, and is constructed in two floors. Interior walls are constructed of wood frame, the exterior walls are of wood frame, and have a stucco finish.

The accommodation consists of the following: Basement floor: bedrooms, bathrooms, laundry, drying room, lounge and kitchen, storage room and furnace room. The main floor consists of bedrooms, lounge and kitchen, and matron's suite.

## **MECHANICAL BRANCH**

This report covers the operation and maintenance of nine Government Power Plants and three Government Heating Plants and the supply and maintenance of utility services at these major Provincial Institutions. Operation and supervision of the latter three plants, namely, Belmont Rehabilitation Centre, Bowden Institution and Rosehaven Auxiliary Home, was transferred to this Branch on April 1st, 1958.

Total cost figures of the attached operating statistical sheet for the Power Plants show a decrease from the previous year while total output of services still continues to increase. The statistical sheet of capital expenditure covers for replacement and new equipment, its installation and, plant renovation or expansion. All are briefly enlarged in the following notes.

### **Parliament Buildings — Edmonton**

A new 1000 KVA capacity steam turbo-alternator unit has been purchased and delivered to the plant. Foundation for the unit has been constructed and piping alterations effected, all in readiness for early erection.

### **Provincial Institute of Technology & Art — Calgary**

A new 750 KVA capacity steam turbo-alternator unit has been purchased and delivered to the plant. Foundation for the unit has been constructed and other work completed, all in readiness for early erection.

### **Provincial Mental Hospital — Ponoka**

Installation of a new 8,000 gallon hot water storage tank and heater equipment has been completed. This tank replaces one originally purchased and installed about 1932.

A new turbine type deep well pump has been purchased to replace one of two old plunger type pumps. The latter are nearing the age of obsolescence. One will provide repair parts for the other when the new pump is soon installed.

Work is started to move certain plant equipment, steam, gas and other lines, etc., to clear the present engine room area for proposed kitchen-bakery extension and power plant renovation. All services to the Institution must be maintained regardless of project work.

### **Provincial Gaol — Fort Saskatchewan**

One additional storage type water heater and accessory equipment has been purchased to replace an old tank and meet increased demand for laundry service hot water. Installation will be completed in the coming year.

### **Provincial Gaol — Lethbridge**

Work requirement of our staff at this plant for the past year has been that of regular operational and routine maintenance duties. Such duties however, typical of all plants, are not without interest. Two 5,000 P.P.H. bailers are installed.

Practically 35,000,000 pounds of steam was produced, eighty per-cent going to building heating and the balance to other services. Two engine-alternator units of 100 KVA and 156 KVA rating are in service. Some 359,250 KWHrs. of electricity was generated and a further 18,600 KWHrs. purchased. Installation includes also all auxiliaries, water softeners, service water heaters, water pumps and a small, well equipped repair shop. Operation duties of plant cover also the sewerage system pumping stations and treatment plant — which handled some 20,000,000 gallons this last year. Maintenance duties cover not only for the plant but also all utility services and mechanical repair of kitchen, laundry, cannery and other equipment.

### **Provincial Mental Institute — Oliver**

Feedwater filters and pump control equipment has been purchased and installed for #3 and #4 Boilers and in addition, an auxiliary loop feed line was installed.

A new tower service pump with motor drive has been purchased and installed in the water reservoir pump house. This pump duplicates one originally put in use in 1946 and now permits of assured continual service to the Institution and better maintenance of all pumps in the station.

### **Baker Memorial Sanatorium — Calgary**

The building extension to power house and construction of foundation for new 18,000 P.P.H., boiler has been completed.

Erection of the boiler is completed and installation of feed pumps and all piping will be completed at an early date and the boiler made available for service when the present 12,000 P.P.H. boiler comes off the line for seasonal inspection.

Installation of the new storage type water heater has been completed and the heater is now in service.

Mention was made last year of the sewage treatment plant at this institution. Full report with recommendation in this regard has gone forward and as a result we understand that capital monies have been provided for construction of a new plant or possible connection to the City of Calgary sewerage system through the Village of Bowness.

### **Provincial Training School — Red Deer**

At this plant, building extension to the power house and construction of foundation for a new boiler has been completed.

Although the installation and piping of all auxiliary equipment is not yet completed, the boiler, of 25,000 P.P.H., capacity, has been in service since January 27th, carrying a base load. Steam generation at this plant totalled 74,853,000 pounds this past year.

Three, 50 KVA transformers were purchased and installed to double the capacity of our incoming power service transformer bank to 300 KVA and insure continuity of service to the Institu-



tion in the event of scheduled or forced outage of our largest (312½ KVA) generating unit. Electrical power generated last year was 955,440 KWHrs. A further 187,400 KWHrs. was purchased.

#### **Deerhome Institute — Red Deer**

Work requirement of our staff at this plant for the past year has been that of regular operational and routine maintenance duties. The plant and equipment installation is new.

The Institution, however, is still building. Three additional dormitories are under construction and a further three dormitories and other buildings are projected. We have suggested that boiler room addition and installation of a third boiler should be included in immediate planning. We understand that this is being done.

#### **Heating Plants — Edmonton, Bowden, Camrose**

As previously stated, supervision and operation of these larger institutional Government Heating Plants, and their allied services (water supply, sewage treatment, etc.) was transferred to this Branch on April 1st, 1958.

The attached statistical sheet reflects only the size of the plants. We can add they are capably staffed and we are particularly impressed with their housekeeping.

F. E. COE,  
Mechanical Superintendent.

October 2nd, 1959.

**STATISTICS ON CAPITAL EXPENDITURES, PROVINCIAL GOVERNMENT POWER PLANT**  
**For Year Ending March 31, 1959**  
**(F. E. COE — Mechanical Superintendent)**

	Oil Storage Tanks, Hot Water Storage tanks, Pumps, Piping, Insulation, etc.	Generating Equipment & Foundations, Piping, Insulation, Wiring, etc.	Installation of New Boilers, Piping & Burner Equipment, Insulation, Controls	Replacement of Old Service Lines, Filter, etc.	Extension to Boiler Room, etc.	Expenditure
Parliament Buildings and Administration Buildings, Edmonton .....	\$ .....	\$ 76,220.10	\$ .....	\$ .....	\$ .....	\$ 76,220.10
Institute of Technology, North Hill, Calgary .....	.....	69,462.32	.....	.....	.....	69,462.32
Provincial Mental Hospital, Ponoka .....	1,348.34	15,725.63	10,957.58	.....	.....	28,031.55
Provincial Gaol, Fort Saskatchewan .....	11,375.29	.....	.....	.....	.....	11,375.29
Provincial Mental Institute, Oliver .....	1,206.80	.....	.....	2,187.03	.....	3,393.83
Baker Memorial Sanatorium, Calgary .....	5,839.47	.....	5,575.48	.....	13,325.51	24,740.46
Provincial Training School, Red Deer .....	9,982.95	1,687.70	13,502.00	.....	17,837.25	43,000.90
	\$29,752.85	\$163,095.75	\$30,035.06	\$2,187.03	\$31,162.76	\$256,233.45





# **GAS, WATER AND POWER CONSUMPTION**

at the three below mentioned Heating Plants  
under the jurisdiction of the

## **MECHANICAL BRANCH, DEPARTMENT OF PUBLIC WORKS**

for period April 1, 1958 to March 31, 1959

	GAS (cu. ft.)	WATER (Imperial Gallons)	POWER (Kilowatt Hours)	EXPENDITURE Plant Operation and Maintenance
Rosehaven Home, Camrose .....	50,154,000	16,206,947	613,400	\$ 70,290.32
Bowden Institution, Bowden .....	34,865,000	12,780,800	907,420	62,502.77
Belmont Rehabilitation Centre, Belmont .....	23,108,000	6,194,250	388,900	44,217.97
				<hr/>
Total Gas Used .....		108,127,000	Cubic Feet	\$177,011.06
Total Water Used .....		35,181,997	Imperial Gallons	
Total Electricity Used .....		1,909,720	Kilowatt Hours	







